

## SEQUENCE LISTING

<110> University of Illinois at Chicago  
 Sharma, Arun  
 Hoffman, Ronald

<120> HUMAN HEMATOPOIETIC GROWTH REGULATORY GENE AND USES

<130> MBHB: CU08/PPA

<160> 17

<170> PatentIn version 3.1

<210> 1

<211> 2328

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (1)..(2328)

<223> Human Hiwi Protein

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Asp Tyr Asn Pro Leu Met Glu Ala Arg Arg Leu Arg Ser Ala Leu Leu

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Ser Lys Thr Arg Asn Gly Glu Asp Val Arg Ile Thr Ile Thr Leu Thr	
100 105 110	
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Asn Glu Leu Pro Pro Thr Ser Pro Thr Cys Leu Gln Phe Tyr Asn Ile	
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Ile Met Leu Cys Thr Asp Val Ser His Lys Val Leu Arg Ser Glu Thr	
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Val Leu Asp Phe Met Phe Asn Phe Tyr His Gln Thr Glu Glu His Lys	
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Asn Pro Lys Ser Thr Phe Lys Lys Ala Asp Gly Ser Glu Val Ser Phe	
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Leu Glu Tyr Tyr Arg Lys Gln Tyr Asn Gln Glu Ile Thr Asp Leu Lys	

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Lys Tyr Asp Ala Ile Lys Lys Tyr Leu Cys Thr Asp Cys Pro Thr Pro	
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Ser Arg Ile Ile Val Tyr Arg Asp Gly Val Gly Asp Gly Gln Leu Lys	
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ccc aca cat tac aat gtc atc tat gac aac agc ggc ctg aag cca gac				2160
Pro Thr His Tyr Asn Val Ile Tyr Asp Asn Ser Gly Leu Lys Pro Asp				
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gac ata cag cgc ttg acc tac aag ctg tgc cac atc tat tac aac tgg				2208
His Ile Gln Arg Leu Thr Tyr Lys Leu Cys His Ile Tyr Tyr Asn Trp				
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Pro Gly Val Ile Arg Val Pro Ala Pro Cys Gln Tyr Ala His Lys Leu				
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Asp Tyr Asn Pro Leu Met Glu Ala Arg Arg Leu Arg Ser Ala Leu Leu  
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Phe Gln His Glu Asp Leu Ile Gly Lys Cys His Ala Phe Asp Gly Thr  
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Ile Leu Phe Leu Pro Lys Arg Leu Gln Gln Lys Val Thr Glu Val Phe  
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Ser Lys Thr Arg Asn Gly Glu Asp Val Arg Ile Thr Ile Thr Leu Thr  
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Asn Glu Leu Pro Pro Thr Ser Pro Thr Cys Leu Gln Phe Tyr Asn Ile  
 115 120 125

Ile Phe Arg Arg Leu Leu Lys Ile Met Asn Leu Gln Gln Ile Gly Arg  
 130 135 140

Asn Tyr Tyr Asn Pro Asn Asp Pro Ile Asp Ile Pro Ser His Arg Leu  
 145 150 155 160

Val Ile Trp Pro Gly Phe Thr Thr Ser Ile Leu Gln Tyr Glu Asn Ser  
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Ile Met Leu Cys Thr Asp Val Ser His Lys Val Leu Arg Ser Glu Thr  
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Phe Gln Glu Gln Val Ser Lys Glu Leu Ile Gly Leu Val Val Leu Thr  
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Lys Tyr Asn Asn Lys Thr Tyr Arg Val Asp Asp Ile Asp Trp Asp Gln  
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Asn Pro Lys Ser Thr Phe Lys Lys Ala Asp Gly Ser Glu Val Ser Phe  
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Gln Pro Val Leu Val Ser Gln Pro Lys Arg Arg Arg Gly Pro Gly Gly  
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Gly Leu Thr Asp Lys Met Arg Asn Asp Phe Asn Val Met Lys Asp Leu  
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Ala Val His Thr Arg Leu Thr Pro Glu Gln Arg Gln Arg Glu Val Gly  
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Arg Leu Ile Asp Tyr Ile His Lys Asn Asp Asn Val Gln Arg Glu Leu  
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Arg Asp Trp Gly Leu Ser Phe Asp Ser Asn Leu Leu Ser Phe Ser Gly  
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Arg Ile Leu Gln Thr Glu Lys Ile His Gln Gly Gly Lys Thr Phe Asp  
370 375 380

Tyr Asn Pro Gln Phe Ala Asp Trp Ser Lys Glu Thr Arg Gly Ala Pro  
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Leu Ile Ser Val Lys Pro Leu Asp Asn Trp Leu Leu Ile Tyr Thr Arg  
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Thr Pro Ala Met Gly Met Gln Met Arg Lys Ala Ile Met Ile Glu Val  
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Tyr Asp Phe Phe Ile Val Ser Gln Ala Val Arg Ser Gly Ser Val Ser  
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Pro Thr His Tyr Asn Val Ile Tyr Asp Asn Ser Gly Leu Lys Pro Asp  
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His Ile Gln Arg Leu Thr Tyr Lys Leu Cys His Ile Tyr Tyr Asn Trp  
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Ala Phe Leu Val Gly Gln Ser Ile His Arg Glu Pro Asn Leu Ser Leu  
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Phe Arg Gly Ser Ser Ser Gly Asp Pro Arg Ala Asp Pro Arg Ile Glu  
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Ala Ser Arg Glu Arg Arg Ala Leu Glu Glu Ala Pro Arg Arg Glu Gly  
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Gly Pro Pro Glu Arg Lys Pro Trp Gly Asp Gln Tyr Asp Tyr Leu Asn  
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Thr Arg Pro Val Glu Leu Val Ser Lys Lys Gly Thr Asp Gly Val Pro  
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Val Met Leu Gln Thr Asn Phe Phe Arg Leu Lys Thr Lys Pro Glu Trp  
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Arg Ile Val His Tyr His Val Glu Phe Glu Pro Ser Ile Glu Asn Pro  
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Arg Val Arg Met Gly Val Leu Ser Asn His Ala Asn Leu Leu Gly Ser  
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Gly Tyr Leu Phe Asp Gly Leu Gln Leu Phe Thr Thr Arg Lys Phe Glu  
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Gln Glu Ile Thr Val Leu Ser Gly Lys Ser Lys Leu Asp Ile Glu Tyr  
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Lys Ile Ser Ile Lys Phe Val Gly Phe Ile Ser Cys Ala Glu Pro Arg  
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Glu Ile Arg Glu Phe Lys Met Glu Leu Trp Pro Gly Tyr Glu Thr Ser  
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Lys Val Met Arg Thr Glu Thr Ile Tyr Asp Ile Met Arg Arg Cys Ser  
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Leu Ile Val Leu Thr Asp Tyr Asn Asn Arg Thr Tyr Arg Ile Asn Asp  
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 325 330 335

Arg Asp His Asn Gln Pro Leu Leu Ile Ser Lys Asn Arg Asp Lys Ala  
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Leu Lys Thr Asn Ala Ser Glu Leu Val Val Leu Ile Pro Glu Leu Cys  
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Arg Val Thr Gly Leu Asn Ala Glu Met Arg Ser Asn Phe Gln Leu Met  
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Lys Val Leu Arg Asp Trp Asn Met Glu Leu Asp Lys Asn Val Thr Glu  
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Val Gln Gly Arg Ile Ile Gly Gln Gln Asn Ile Val Phe His Asn Gly  
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Lys Val Pro Ala Gly Glu Asn Ala Asp Trp Gln Arg His Phe Arg Asp  
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Gln Arg Met Leu Thr Thr Pro Ser Asp Gly Leu Asp Arg Trp Ala Val  
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 675 680 685

Ser Ser Gly Ser Leu Lys Gln Leu Phe Glu Phe Glu Val Lys Asp Ile  
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